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November 2, 1993

William Caton
Secretary, Acting
Federal Communications Commission
1919 M Street, N.W.
Washington, D.C. 20554

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Reference: Comments on NPRM 93-252 and 93-253

Dear Mr. Caton:

Enclosed are the Original and four (4) copies of our Comments on the above NPRMs.

Very truly yours,

Terrence P. McGarty
Chairman and CEO

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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

93-253

In the Matter of

Implementation of Section 309(j)	)
of the Communications Act	) Gen. Docket No. 93-253
Competitive Bidding	) November 10, 1993

Comments on NPRM	)
and the Auction Process from	)
Telmarc Telecommunications, Inc., and	)
The Telmarc Group, Inc.	)

POSITION PAPER

The attached Position Paper has been prepared by and represents the position of The Telmarc Group, Inc., and Telmarc Telecommunications, Inc.

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Contents

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1.0 Summary

The Respondent has reviewed the proposals and suggestions of the Commission in its NPRM and has accordingly replies with the following recommendations and needs for clarification. The Respondents was one of the few in the November 8, 1992 NPRM on PCS to have recommended auctions, and specifically five licenses at 20 MHz a piece. In addition the Commentator recommended the second bid sealed simultaneous auction process as the one that is economically the most efficient in clearing the market. In the year since the Respondents filing, the Commission and the players in that PCS market have had the opportunity to study and analyze the issues further. The Respondent has come to believe that its position of a year ago, as vindicated by the Commissions Report and Order, is still a valid position. Further, the Respondent proposes that the position is subject to further clarification as has been requested in this NPRM issued by the Commission. To wit, the Respondent forwards the following recommendations and observations.

Recommendation 1: (Auction Process)

The Respondent recommends an auction process that is simple and obvious to all concerned. Simply put, the auction should be an open sequential bid auction, starting from the largest asset to be auctioned down. Furthermore, the Respondent requests that the Commission consider block auctions of combined asset blocks in a sealed pre oral auction bids. The determination of the winner of the auction process would therefore be the highest of the two bids; oral auction on an asset bloc or the sealed bid on a set of such blocks.

Recommendation 2: (Eligibility)

The Respondent recognizes that there are special eligibility rules for small businesses, minorities and women owned companies. The Respondent recommends that the Commission implement a strict rule that ensures that all such companies are directly involved and that the Commission prevent "fronting" of larger and non-qualified investors in these entities. There must be developed, as is herein recommended, a "bright line" test to ensure that the companies that are eligible, and so qualified on the basis of their prior existence are not a creation of the moment.

Recommendation 3: (Financial Factors)

The Respondent recognizes three elements of the auction process that relate to its overall financial effectiveness; application fees, nature of payment, and recognition of prior achievement. As to prior achievement and contribution, the Respondent recommends that a "bright line" test be applied to included all of those companies recognized by the Commission as qualified Pioneer Preference applicants in the Pioneer Preference Proceedings, and also qualifying as a member of the qualified group of small businesses, minorities, or women owned companies, and that such entities receive the 10% suggested reduction to their overall bid. Such a "innovators bidding preference" will act as a continuing motivator to all future innovators in telecommunications. As to payments, the Respondent recommends that the Commission require full and complete payment at the complete of the auction with the exception of the group of small businesses, women and minority owned companies, and

Recommendation 4: (National Goals)

The Commission has indirectly recognized the need to ensure that PCS can be offered as a seamless interoperable national network service. The Respondent recommends that the Commission take such measures as may be necessary to ensure that bidders will implement such a service, and that bid price be one of several factors in allocating spectrum.

2.0 Auction Options

The Commission has provided a multiple set of auction options that can be used. However, the Respondent, as well as several of the Commission staff have recognized that an auction of this magnitude and uncertainty would function best if the process of the auction was clear and simple. The Respondent in its response to the NPRM in November of 1993 had recommended the second highest price auction process because of its economic market efficiencies since it theoretically clears the market at the true value of the asset auctioned. However, in the year since that recommendation, the Respondent recognizes that considerable confusion may ensure from understanding the complex theoretical nature of such an auction and its economic efficiency. As such, the Respondent recognizes the need to have an auction process, albeit sub optimal from a total policy and economic perspective, that is "obvious" to all concerned.

The auction process may be compared to an options bidding process. The auction proposed by the Commission is unlike any other that the Commission has referred to. Specifically there will be over 2,500 properties auctioned over some period of time. Each property will be valued on a per PoP basis where the value will be based, if rational, on a net present value of the property. The Net Present Value, NPV, will be an individual reflection of revenue, expenses, capital and cost of money. It will be a reflection of the ability to penetrate the market, to efficiently operate, and to use the most effective capital base. It will also reflect the cost of raising capital to each of the bidders.

The dynamics of the bid process will, if held sequentially, result in a process that has the financial dynamics of an options market, rather than an auction. Auctions are typically delimited in terms of the property. Options reflect an ongoing process of a market, which if there are 2,500 properties, will effectively result. It is well know in Option Pricing Theory that the market will equilibrate in the short term and will reflect the risk factors associated with the investment as well as the net present value of the investment.[1] The use of an open bidding process will be key to the success of that process. Closed auctions are possible, but the feedback concerning pricing is delayed and noisy. An open auction process is considered the most efficient. The Respondent also recognizes that many of the tools available to the options trader will, in effect, become available to the auction trader. Furthermore, by establishing the market within this paradigm, the Commission will obtain an basis price that will clear the market and reflect the true economic value. Subsequent trades of the asset will therefore be based on added value, specifically value created by the winner of the auction and value created in the post auction market by risk adjustment, and true market potential. Thus the Respondent agrees with the Commission that the issue of "unjust enrichment" is moot, in view of a true market price having been already paid.

2.1 Bidding Prices

The issues of auctions is based on what is being bid and the bid price. Unlike any other comparable auction, the assets being offered to the public have no common post auction market value. The value to the bidder is based upon several factors:

Market Penetration and Size: The greater the market penetration the greater the share. The greater the share the more effect the competitor can then be. Share is dependent upon Brand recognition. Thus a large entrant with a Brand would tend to have a better share.

Capital Efficiency: The efficiency of capital use in the local plant by the bidder. This is technology dependent and size of purchase dependent. Also capital may have to be deployed to move the existing microwave users.[2]

Operating Efficiency: The ability to provide a national infrastructure of such services as network management, billing, roaming and customer service would allow for a lower set of operating costs per customer, and possibly even operating costs on a marginal rather than average basis. This would dramatically change cash flow.

Cost to Acquire Customers: The issue of brand reflects not only the revenue element but also the costs element of acquiring a new customer. Certain bidders bring unique "Brand"

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[1]Cox, J.C, M. Rubenstein, Options Markets, Prentice Hall, 1985, pp. 63-71; McMillan, L.G., Options as Strategic Investments, NY Institute of Finance, 1986, pp. 108-112; Bookstaber, R.M., Option Pricing, Addison Wesley, 1984, p. 45.

[2]A simple calculation may make clear the cost to move the existing microwave users. If one selects Los Angeles as an example, and if one uses the standard number that appears to be about 2,000 links per Block, A, B, or C, and if one further assumes that the microwave users are moved to 38 GHz bands, and that four 38 GHz links are required per exiting link, and that each 38 GHz link is $10,000, then the cost for LA is $80 million per frequency block. LA has about 20 million PoPs, so that the cost is $4 per PoP to move the existing microwave users. Now if one assumes, further, that the microwave users are proportional to population density, that is in Boston there are one fifth of the links with one fifth of the population, then one concludes that the costs of moving microwave users is a fixed fee, independent of the market! This can be a significant additional up front cost.

recognition to the bid process that can be reflected in a significantly higher NPV per PoP. There are certain IECs who have more "Brand" recognition than the LECs, and particularly more than the SWMRs.[3]

Access Fees: As has been stated by the Respondent, access fees will make or break this business. The RBOCs through the LEC have predatory market power in eliminating competition. Unless access fees are eliminated, any discrepancy favoring the RBOC entity will drive competition from the market and should, rationally, be reflected in the auction price per PoP.

Cost of Capital: The cost of capital will dramatically effect the price of a bid. This is dramatically different from a SWMR and an RBOC.

Let us now take these factors and place them into a valuation model for pricing. This is at the heart of the dynamics of and allocation process based upon a bidding or auction mechanism. Let C be the capital, E the total expenses (operating plus cost to acquire a new customer, m the cost of capital and R the revenue). Let us create a NPV, net present value function that uses revenue, expenses and depreciation. [4] If m is the cost of capital or the effective discount rate at the defined risk level, than the NPV can be defined as;[5]

$$V(N) = \sum_{n=0}^{N} \frac{R(n) - E(n) - C(n)}{(1+m)^n}$$

We can define this NPV on a per customer basis. We further use a time horizon of N years for the measurement of the NPV. We shall use the life of a PCS license, assuming ten years.

Now we can expand this concept one step is we assume that there is some form of tax, foe example an auction fee or a franchise fee. Let us assume that there is a "tax" due to some form of U.S. Government auction process. Call that tax, T. This then reduces the NPV as shown in the following.

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[3]SWMR stands for small businesses, women and minority owned companies and rural telephone companies.

[4]It should be noted that this should be revenue, expenses and capital. We shall assume that we can use depreciation since there may be a leasing function available. This is truly an inaccurate method for NPV but it allows a first order comparison of LEC and PCS on a per subscriber basis. A more detailed model has been developed by the author and presented elsewhere, see McGarty, CMU, 1992.

[5]McGarty, Business Plans. See the details on the definition of NPV and its evaluation. In the proper sense it does not include depreciation but capital.

$$V^*(N) = \sum_{n=0}^{N} \frac{R(n) - E(n) - C(n) - T(n)}{(1+m)^n}$$

Now we can further add to the tax, the access fee. Let A be the access fee. Then the PCS carrier faces the following NPV function;

$$V_{PCS}(N) = \sum_{n=0}^{N} \frac{R(n) - E(n) - C(n) - T(n) - A(n)}{(1+m)^n}$$

In Contrast the LEC has the value;

$$V_{LEC}(N) = \sum_{n=0}^{N} \frac{R(n) - E(n) - C(n)}{(1+m)^n}$$

It should be immediately clear that the LEC, even if it is more economically efficient can reduce the net present value per customer of the PCS company by four means;

(i) **Access Fees:** The LEC can burden the PCS company with and access fee, such as the $55 per month number in New York, that makes the PCS company, in any circumstance non-competitive.[6]

(ii) **Auction "Tax"**; The "Tax" can be structured in such a fashion as a large up front payment that increases the risk and further reduces the NPV for the PCS company.[7]

(iii) **Increased Risk**: The cost of capital, m, can be different for the two companies. Specifically, if m_{LEC} is the LEC cost of capital, generally a very low cost due to its

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[6]McGarty, Wireless (MIT, 1993). The author details the impact of access fees on PCS and details the potential for violation under Robinson Patman. It is not clear if there is any violation per se but the issue of internal transfer pricing of switch access at possible rates less than long term average costs and having the IECs and other CAPs effectively underwrite these costs are in question. Another factor that delimits access indirectly is that of number availability through the North American Numbering Plan (NAM), see Brenner, p. 19. The NANP can also be an access barrier to entry to any potential competitor. It is controlled by Bellcore, the R&D arm of the RBOCs. Bellcore is generally difficult to deal with and as has been seen in the cellular world the ability of Bellcore to manipulate the numbering plan can add additional costs and market delays. It is an issue that the Commission must address if it truly seeks competitive options.

[7]Clearly this is a Fiscal Policy element that impacts the Industrial Policy element. The author suggest a balanced of risk sharing. This approach is a modification of the policies developed by Solow in the area of Growth Theory and have been positioned in a similar fashion by Arrow.

existence and capital raising capacity, and if m $_{PCS}$ is the cost of capital for the PCS entrant, then we find;[8]

$$m_{PCS} >> m_{LEC}$$

Specifically:

$$V_{PCS}(N) = \sum_{n=0}^{N} \frac{R(n) - E(n) - C(n) - T(n) - A(n)}{(1 + m_{PCS})^n}$$

for the PCS entity, and;

$$V_{LEC}(N) = \sum_{n=0}^{N} \frac{R(n) - E(n) - C(n)}{(1 + m_{LEC})^n}$$

for the LEC.

Thus, the LEC, can through its entrenched position, increase the risk level and, in turn, reduce the NPV, indirectly, through the cost of capital.

(iv) **Monopoly Rents**: The LEC, as a monopoly, has what is termed monopoly rents resulting from its monopolistic control over the property. This rent, as we shall discuss in the next section, acts in a bidding process, as a price escalator. Namely the LEC, if in the bidding process, can bid an amount that is consistent with its NPV, plus the amount equal to its existing monopoly rent. Namely; if MR_{LEC} is the LEC monopoly rent, as defined in the next section, then the NPV_{LEC} is;

$$V_{LEC}(N) = \sum_{n=0}^{N} \frac{R(n) - E(n) - C(n)}{(1 + m_{LEC})^n} + MR_{LEC}$$
$$>> V_{PCS}(N) = \sum_{n=0}^{N} \frac{R(n) - E(n) - C(n) - T(n) - A(n)}{(1 + m_{PCS})^n}$$

Note, that the LEC now has four factors that increase its value for bidding for a wireless property. The LEC has such strong market power that it could, in a collusive fashion, between and amongst themselves, dominate the new PCS market. All one has to do is look at the current Cellular markets and see that they dominate by almost 70% all current cellular properties and if one adds AT&T, it is almost 90% of the major markets.

[8]See the reference by Kolbe where he develops the details on rates of return and the cost of Capital for utilities.

The price that a company bids will therefore be based directly upon the value the company sets in the market. Consider three companies and consider that they value the market on a value per PoP basis a follows;

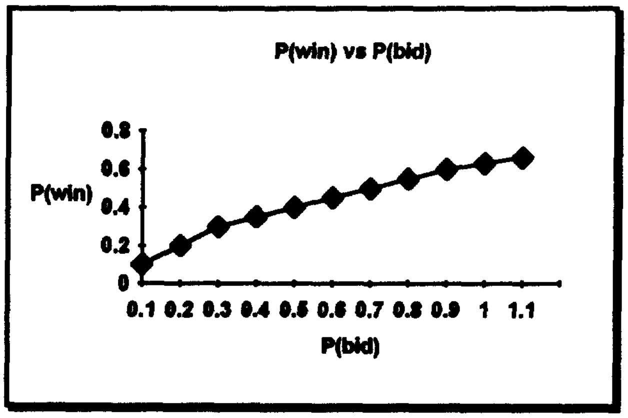
$$V_1; V_2; V_3:$$
$$where;$$
$$V_1 < V_2 < V_3.$$

then, assume that there is a relationship between the value bid, the bid price, B, and the value of the business, V. Let this be:

$$B_k = f(V_k)$$

For example, one may bid at 25% of the value. However, a bidder will bid at value B based upon a factor which is related to the probability of winning. One can plot the Probability of winning a bid as a function of the percent of the value bid. This is shown below, where P_{win} is the probability of winning and P_{bid} is the percent of the value of the property that is bid.

Figure: Win versus Bid



What this states is that the winning bids may not reflect the value of the property. Specifically, if we have the following:

$$V_1 < V_2 < V_3;$$
$$\textit{and}:$$
$$P(win{:}1) > P(win{:}2) > P(win{:}3);$$
$$\textit{then};$$
$$P(bid{:}1) > P(bid{:}2) > P(bid{:}3);$$
$$\textit{such\_that};$$
$$B_1 > B_2 > B_3.$$

That is the lowest value per PoP may bid the highest value per PoP because of factors that have nothing to do with the value of the bid property. This means that a SWMR, which is a Front for a large pool of funds, may irrationally bid and eliminate more rational bids in the process, and thus vitiate against the policy goal set by the Commission.

This analysis leads to several observations:

- *Fronting may lead to irrational bidding and may result in an inability to achieve the policy goal intended by the legislation.*
- *Property values reflect both endogenous and exogenous factors; namely the market and its competitive forces compared to the companies ability to operate as both a local and national entity.*
- *Value of the property is not independent of the bidder. This is not oil or gas bids wherein the market has been established. These bids are futures on products never sold.*
- *The Commission's proposed bid banding will ensure the elimination of predatory practices of large companies directly on small. The Commission's eligibility rules must be used to ensue the elimination of indirect predatory forces on small companies by Fronts of large companies.*

These observations thus lead to the following conclusion.

Conclusion: *The value of a property, even measured in value per PoP, will vary based upon endogenous and exogenous factors. The endogenous factors will depend upon the bidders perceived view of the market and its penetration and pricing, and the bidders know ability to use capital and operate, as well as the bidder's cost to raise capital. The exogenous factors are common and are driven by the population demographics, the population density and the exiting infrastructure present. A bidder's value of the property is common amongst bidders based on the exogenous factors and differs widely based upon the endogenous factors. An auction may or may not reflect the true value of the property.*

2.2 Bidding Options

There are several bidding options that the Commission has proposed and there are many others available. The two extremes proposed are sealed simultaneous and open sequential. In addition there is a proposed combinatorial bidding system suggested. As the Respondent had said in the past NPRM comments in November, 1992, the most efficient scheme is sealed simultaneous second highest priced pay bids. The problem, however, is that the theory behind this analysis assumes that the bidders all have open and common information on the property and that the value of the property is dominated by exogenous factors common to all. It assumes that there are de minimis endogenous factors. It has been argued herein that the endogenous factors dominate in PCS. Further, closed bids are more susceptible to Fronting.

The second concern is that the bid process be simple, in terms of common understanding, and that it be efficient in terms of pricing. There is significant confusion about complex second price bidding and it i difficult to explain it to those not skilled in the art of Game Theory. Further, it and other complex bidding schemes have been cultural evaluations of schemes that were all started as open sequential bids.

Therefore, the Respondent recommends the open sequential bid as the sole process. It is simple, efficient, although arguably biased. reflects the common exogenous variables differentially, and is not open to second guessing after the bid has been made. Any other process, may result in litigation, protest, confusion, and possible delay.

3.0 Eligibility

Eligibility to bid has been discussed by the Commission in the NPRM and other documents. The Respondent will not comment on the Commissions eligibility for the MTA non SWMR bands. The Respondent herein comments only on SWMR eligibility.

The intent of the SWMR band, Band C, is for small businesses, women, minority and rural telephone companies to enter into this competitive market. It was not the intent of the legislation nor of the Commission to have such entities created and used as "fronts" for larger entities who are seeking market dominance. There are three driving factors that the Commission must consider in is development, implementation, and management of the eligibility process:

Credential: This issue relates to the true nature of any entity seeking to compete in this Band. Namely that it prima facie meets any "bright line" test of what is an eligible entity in the SWMR band. The Commission may make such rules or enforce such rules that are already i force. The Respondent supports a "bright line" definition of any such type. The Respondent supports the existing rules for women and minority companies, and supports the Commissions proposal, based upon its reading of the SBAC Report, of small businesses and rural telephone companies.

Credibility: This issue relates to whether the small business, minority, women's company or rural telephone company can actually run the business. This admittedly may be handled after the fact by economic forces and the invisible hand of the market. The results of such laissez faire treatment may be a disenfranchising of other more competent and capable SWMRs who may have been more successful. The issue here begins to address the concern of Fronts. A Front is any entity not specifically committed to the development and deployment, itself, of a PCS system. The concern is that Fronts may rapidly spring up and deteriorate the opportunities that other successful entities may have in the C Band.

Competitiveness: The C Band must compete with the A and B bands, which are to occupied with RBOCs, AT&T, MCI, GTE and other formidable competitors. The C Band players, if credentialled and credible, must have the financial resources and common infrastructure to have a minimal chance of succeeding. This means that the SWMRs must do two things: collude amongst each other for the establishment of a national management infrastructure and seek capital sources that on the one hand seek the financial returns available while on the other hand do not control the SWMR as a Front.

3.1 Bidding Eligibility

The criteria for consideration in SWMR eligibility relates to their ability to succeed and their ability to be independent. There is already a movement on several fronts to develop Fronted bid pools that are nothing more than the creation of potential shams to be the bidding entities for moneyed sources whose intentions are nothing more that buying spectrum and flipping it soon thereafter. There are also activities to create Fronts for larger telecommunications entities to use the C Band as a "Back door" to the wireless market, thus driving out independent entrepreneurs from the business.

The Respondent is concerned that from a public policy perspective the intent of the law was to establish true and viable opportunities for the new business segments, not only because of who they may be but more importantly because of what new and innovative business and service concepts that these entities may bring to the market. Suffice it to say the policy is not a reward for being in a class, but it is a recognition that this set of classes may, based on their performances elsewhere in the U.S. economy, bring new and innovative and competitive concepts to the market. This alone is an essential element for the introduction of new and innovative services in the U.S.

3.2 Innovators Eligibility and Preference

The Commission has also recognized the contributions of innovators in the process. The Respondent has attached in the following Table the list of the companies whose Pioneer Preference filings were accepted by the Commission by the deadline of May 11, 1993. All of these companies have been innovators, and many of them have continued to innovate. Some of the license have been withdrawn because the company has ceased to file reports, but there are many of the companies who have filed reports and have made contributions to the field; be they significant technical, system, service, or architectural innovations which are now readily accepted.

Many of these companies did so with little to no expense in legal, lobbying, or support efforts, in contrast, these companies may have used the talents of their own people who personally sacrificed their time and energies in a true entrepreneurial fashion to create new ideas, concepts, systems, and services. The Respondent strongly argues that the mere presence of money spent is no measure of contribution. The Respondent, as a company who has effectively used all of its human resources, personally and at great personal expense, would not have these expenses reflected in funds allocated to lobbyists and other non-productive functions. The Respondent argues that technical creativity starts with the Principals, who personally create the concepts, the ideas, who take the risks, and search out the challenges. They were true entrepreneurs, creating with their own intellect and power of creative will, new and innovative capabilities in the PCS market.

The Respondent strongly argues that the Commission should not use any "bright line" test that uses money spent, independent of personal contribution, as reflected in the public record. In fact the Respondent strongly recommends that the test should be nothing more than a clear existence on the FCC records of acceptance and contribution and should include no indication of how the books of any company have been presented to the outside, such presentation not necessarily reflective of what may actually have been allocated, and such reflection a possible indication of third party efforts not representative of the company per se.

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Table: List of Pioneer Preference Filings Accepted[9,10]

Company	Type	Qualify
Adelphia	CATV	No
Advanced MobileComm	Investment/Fidelity	No
AT&T	IEC	No
American Telezone	SWMR	Yes
Ameritech	LEC	No
Bell Atlantic	LEC	No
Broadband Communications Corp.	Manufacturer	No
Cable USA		Unk
Cellular Services		Unk
Comcast	CATV/Cellular	No
Corporate Technology Partners	SWMR	Yes
Cox	CATV/Publisher	No
Ericsson	Manufacturer	No
Fleet Call	SMR/NextTel	No
Freeman		Unk
Grand Broadcasting		Unk
Iowa Network Services		Unk
Omnipoint	*Manufacturer*	No
Omnipoint, Oracle, McCaw	Manufacturer	No
Omnipoint Mobile Data	Manufacturer	No
Pacific Bell	LEC	No
Pac Tel	RBOC	No
Pagemart		Unk
Pulson		Unk
QUALCOMM	Manufacturer	No
Radio Telecom and Technology		Unk
SATCOM		Unk
SCS Mobilecom	Interdigital	No
SM Tek		Unk
Spatial Communications	Manufacturer	No
Suite 12	Investor	No
TCI	CATV/RBOC	No
Telmarc Group, Inc., Telmarc Telecommunications, Co.	SWMR	Yes
TRX Transportation Telephone		No
Viacom	CATV	No
APC	Newspaper/ Washington Post	No
Associated PCN	Cellular/Associated	No
LiTel	Manufacturer	No
PCN America		Unk
Time Warner	CATV	No
PCS NY	SWMR	Yes
TelLogic	SWMR	Yes

[9]FCC Public Notice, No 23063, May 11, 1993.

[10]The entries in this chart are done to the best knowledge available at the time it was prepared. There may be inaccuracies or misinterpretations of the company's current business or its status in the bid. The judgment was may at the time of filing and is subject to revision. There are no representations made in this chart as to the current status and the Respondent recommends that the Commission revise it to reflect the current status if this is appropriate.

This list noted above, shows that there are many companies who have innovated and that this bright line is well defined in the Commissions written record. The Respondent supports the Commissions proposal to reward innovators with a reduction in their auction bid.

The Respondent notes that if the "bright line" for an innovator is a company on the above FCC list, and still exists, that it should receive such consideration if and only if it also fits into Band C for SWMRs. This will provide a continuing motivation for SWMR innovators in this band.

4.0 Financial Factors

The Commission seeks comments on the issue of auction payments, especially to the SWMRs. The financial factors that most impact the SWMRs are the fees for application and up front fees and the timing associated with the payment of the auction price. The Respondent is in favor of presenting fees for entry since such fees will be a vetting process for serious bidders. Bidders cannot make frivolous bids with such fees being required. On the other hand, the fees must reflect the intent of the parties relative to their own positions. Clearly an RBOC will have no difficulty in providing such fees. A SWMR may, however, if truly a SWMR, a difficult time in accumulating such a fee deposit. For example, to file for all BTAs would, in the C Band, require an up front deposit of $100 million. Admittedly this represents a good faith payment, such a payment is trivial for an RBOC, difficult for a CATV company, and by definition, impossible for a small business. The Commission should consider parity in a relative or pro rata sense.

4.1 Application Payments

The Commission seeks comments on the nature and size of payments, both application and pre-payment, for the auction process. The Respondent has suggested parity of pre-payment. The Respondent clearly must show a commitment of funds and not be frivolous. However, the pre-payment of the proposal may be extreme. For example, in Boston BTA of 4 million PoPs, the payment would be $1.6 million. Again, clearly an RBOC would find this trivial, whereas a small business would find this as a barrier to entry.

It is therefore recommended that the Commission revise this prepayment to a more reasonable amount, and the Respondent suggest a fixed amount per BTA, on the order of $50,000 to $100,000, to ensure good faith, and that financial bona fides be applied in addition.

4.2 Payment Schedules

The Commission seeks comments on the issue of payment schedules and payment mechanisms for the SWMR Band C winners.

The respondent suggests that the Commission follow its own suggestion of a 20% pre-payment for SWMRs of the winning bid and an amortization of that over the life of the license. This was suggested by the respondent in prior filings, and especially in its filing in November of 1992.

5.0 National Goals

The respondent stated in prior filings to the Commission that the goal for PCS should be:

> ***"The Provision of toll grade quality voice and data services in a seamless interoperable national network service."***

This implies that the service be national in scope, integrated through a set of national standards and interfaces, as well as organizational elements that allow for the implementation of such a national service. Other commentors have attempted to achieve this goal via a national network with single national license. The Commission has held the door open for this to occur under its rules by allowing bidders to combine their bids in sealed up front bids for the national network. If such were the case, then the "deepest pockets" would win and the network would be established. This clearly would result in a restructuring of the pre-divestiture AT&T without any regard for the advantages of competition innovation.

However, in the SWMR band, the C Band, there is a possibility of having a plethora of small businesses, minorities, women and rural telephone companies compete for a national service. To do this, unlike the larger companies, they must naturally cooperate or even collude. The Commission in its NPRM, has stated that pooling for smaller firms may not only be permitted but may me essential.[11] The one common factor of a small firm or a minority or women owned company is the lack of capital. A second factor may be the lack of expertise in telecommunications. The proposal by the Commission for permitting pooling of SWMRs is a proposal that has significant merit in allowing qualified SWMRs to bin in the C Band and to ensure that their bids have a significant chance of becoming successful operations.

[11]Para 93, "... if ant collusion rules are too tightly drawn, they could prevent the formation of efficiency enhancing bidding consortia that pool capital and expertise of small firms in order to compete against bigger firms..."

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Respectfully submitted,

The Telmarc Group, Inc., and
Telmarc Telecommunications, Inc.
November 10, 1993

By: ______________________

Terrence P. McGarty
President,
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Chairman,
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24 Woodbine Rd
Florham Park, NJ 07932

Dated: November 10, 1993

ORIGINAL

CERTIFICATE OF SERVICE

I, Terrence P. McGarty, hereby certify that a copy of the foregoing has been sent by hand delivery (*) or by United Sates mail, first class and postage prepaid, to the following on this Tenth day of November, 1993:

The Honorable James H. Quello
Chairman, Federal Communications Commission
1919 M Street, N.W., Room 802
Washington, D.C. 20554

The Honorable Andrew C. Barrett
Commissioner, Federal Communications Commission
1919 M Street, N.W., Room 844
Washington, D.C. 20554

The Honorable Ervin S. Duggan
Commissioner, Federal Communications Commission
1919 M Street, N.W., Room 832
Washington, D.C. 20554

Dr. Robert M. Pepper, Chief
Office of Plans and Policy
Federal Communications Commission
1919 M Street, Room 822
Washington, D.C. 20554

Dr. Thomas P. Stanley, Chief
Office of Engineering and Technology
Federal Communications Commission
2025 M Street, Room 7002
Washington, D.C., 20554

Attested to this day, November 10, 1993,

Terrence P. McGarty
President,
The Telmarc Group, Inc., and
Chairman,
Telmarc Telecommunications, Inc.